

CERTAMEN MELASTOMATACEIS XXXIV.

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MICROLICIA CLAVILLOSA Wurdack, sp. nov.

In systemate Cogniauxii M. selagineae Naud. et M. cupressinae D. Don affinis, foliis debiliter l-nervatis glanduloso-ciliolatis calycis lobis longioribus glanduloso-ciliolatis differt.

Frutex 0.5-1.5 m, ramulis fastigiatis internodis glabris nodis densiuscule inconspicueque strigulosis pilis glanduliferis ca 0.2-0.3 mm longis. Folia subsessilia dense imbricata 3-3.6 X 0.8-1 mm lanceata apice acuto et ca 0.5 mm pungenti basi acuta, rigidiuscula et modice glanduloso-ciliolata (0.2-0.25 mm) alioqui glabra, debiliter l-nervata marginibus tenuibus. Flores 5-meri in ramulis foliosis terminales sessiles solitarii. Hypanthium (ad torum) 3 mm longum glabrum; tori zona extus dense strigillosa pilis 0.7-1.1 mm longis glanduliferis; calycis tubus ca 0.2 mm longus, lobis 4 X 0.7-0.8 mm lanceatis acutis (apice ca 0.4 mm pungenti) extus glabris et non carinatis intus sparse glandulosus (0.1 mm) marginibus modice ciliolatis pilis 0.5-0.8 mm longis glanduliferis. Petala 9.9-10 X 4.4-4.6 mm oblongo-elliptica apice acuto et 0.1 mm l-setuloso alioqui glabra. Stamina dimorpha; filamenta 4 mm vel 3.6 mm longa; antherarum thecae 3-3.1 X 0.35 X 0.5 mm rostratae poro 0.15-0.2 mm ventraliter inclinato; connectivum 4.1 mm vel 0.6 mm prolongatum, appendice ventrali 1.7 X 0.35 X 0.55 mm et obscure trilobulata vel 0.5 X 0.2 X 0.25 mm et hebeti. Stigma punctiforme; stylus 10 X 0.4 mm glaber; ovarium 3-loculare glabrum apice paulo hebeti-lobulato.

Type Collection: Gates & Estabrook 215 (holotype UB 61815; isotypes MICH, US), collected in Chapada dos Veadeiros 5 km east of Alto Paraiso, Goiás, Brazil, 14° S, 47° W, elev. 1500 m, 16 February 1979. "Woody trunk to 5 cm diam. from fibrous roots on rock outcrops. Extensive roots reaching into rock crevices. Plants from 50 cm to 150 cm tall, capped with a hemisphere of up to 40 cm diam. of small flowers. Petals purple; stamens purple with yellow knees."

Paratype: T. S. Filgueiras 386 (IBGE, US), from Chapada dos Veadeiros, Goiás. "Arbusto, semelhante a um cipreste em exame à primeira vista. Planta pulcherrima ob habitum, flores, et folhas. Corola roxa."

Both suggested relatives have eciliate (except rarely near the branchlet tips) leaves with thick nerves, as well as calyx lobes ca 3 mm long; M. selaginea has eciliate calyx lobes, while M. cupressina has sparse eglandular cilia on the calyx lobes. From Naudin's description, Cogniaux' inclusion of M. stenocladon Naud. as a synonym of M. cupressina may be erroneous; perhaps M. amaro Brade, with hypanthium strigulose well below the toral

zone is a synonym of M. stenocladon. The species epithet refers to the growth habit of M. clavillosa, Bronwyn Gates in the field having dubbed the plants as the Pompon trees.

MERIANIA PICHINCHENSIS Wurdack, sp. nov.

M. tomentosae (Cogn.) Wurdack affinis, foliorum laminis tenuibus subtus in superficie glabris dichasiorum bracteis foliaceis differt.

Ramuli novelli petioli foliorum venae primariae subtus et costa basim versus supra pedicellique primum sparsiuscule pilis pinoideis 0.1-0.3(-0.7) mm longis induti mox glabrati. Petioli 1-3 cm longi; lamina 10-13(-20) X 5-7(-10) cm elliptica apice hebeti-acuto basi late acuta vel anguste obtusa, chartacea et obscure callosa-serrulata, in superficie ubique glabra in venis secundariis subtus sparse caduceque furfuracea, 5-plinervata pari interiore 0.8-1.5 cm supra basim divergenti nervis secundariis 3-6 mm inter se distantibus nervulis subtus laxe (ca 3 mm) reticulatis. Flores 5-meri plerumque terni, dichasiis bracteis sessilibus 4.5-6 X 2.8-3.8 cm ellipticis persistentibus subtentibus, pedicellis 2.2-3.2 cm longis. Hypanthium (ad torum) ca 8 mm longum sicut calyx modice pilis pinoideis brevibus puberulum; calyx in alabastro maturo 10-12 mm longus (rostro ca 4-5 mm longo incluso) ad anthesim in lobis paucis subpersistentibus irregulariter dehiscens. Petala glabra 22-23 X 17-18 mm obovata apice rotundato-truncato. Stamina paullulo dimorphica glabra; filamenta 11 mm vel 13 mm longa; thecae 10 X 1.5-1.7 mm oblongae poro 0.5-0.7 mm diam. dorsaliter inclinato; connectivum 0.5 mm vel 1.2 mm prolongatum, dente basali 2-2.2 mm longo hebeti ad basim tuberculo 0.5-0.7 mm longo rotundato armato. Ovarium 5-loculare glabrum, apice 5-lobulato lobulis ca 1 mm altis oblatiis.

Type Collection: Steven E. Clemants, James L. Luteyn, & Henrik Balslev 1698 (holotype NY; isotype US), collected in wet forest 6 km east of Tandapi on new road from Santo Domingo de los Colorados, Prov. Pichincha, Ecuador, elev. 1740 m, 23 Jan. 1981. "Small tree 4 cm DBH. Petals peach pink."

While the pubescence density on the lower surface of the firm leaves in M. tomentosa varies somewhat, there is no close approach to the glabrous surface (and subglabrous veins) of those in M. pichinchensis. The caducous bracts subtending the umbels in M. tomentosa are 1.5-4 X 0.1-0.6 cm. The connective appendages in the two species are alike. Vegetatively, M. pichinchensis rather resembles M. boliviensis Cogn., which has basally rounded leaf blades and smaller flowers with long-emergent external calyx teeth, as well as an ascending connective appendage free about 2 mm.

MICONIA GROSSIDENTATA Wurdack, sp. nov.

Sect. Miconia. M. schwackei Cogn. affinis, foliis minoribus vix caudato-acuminatis basaliter nervatis filamentis styloque glanduloso-puberulis differt.

Ramuli teretes sicut petioli foliorum venae primariae subtus inflorescentia hypanthiaque densiuscule pilis stellatis 0.1-0.2

mm longis et 0.3-0.4 mm diam. puberuli. Petioli 0.6-1.2 cm longi; lamina 7.5-12(-15) X 2.5-4(-5.5) cm elliptica apice gradatim per ca 1 cm acuminato basi acuta, chartacea et conspicue hebeti-dentata (dentibus 1.5-2 mm profundis et ca 5 mm inter se distantibus), supra glabra, subtus in venis secundariis modice vel sparse stellato-puberula in venulis ultimis superficiei glabra, trinervata nervis secundariis ca 5-9 mm inter se distantibus nervulis subtus planis areolis 0.5-1 mm latis. Inflorescentia 3-5 cm longa pauciflora subspicata (ramulis infimis ca 0.3 cm longis); flores 5-meri sessiles, bracteolis ca 1 X 0.6-0.8 mm ovatis persistentibus. Hypanthium (ad torum) 3 mm longum; calycis tubus 0.6 mm longus, lobis interioribus 0.5 mm longis ovatis, dentibus exterioribus lobos interiores aequantibus vel paullulo (0.1 mm) superantibus; torus intus glaber. Petala 3.1-3.3 X 1.5-1.6 mm oblongo-obovata apicaliter sparse glanduloso-ciliolata alioqui glabra. Stamina paulo dimorphica; filamenta 4.1 mm vel 3.1-3.2 mm longa sicut stylus sparse glanduloso-setulosa (0.1 mm); antherarum thecae oblongo-subulatae, connectivo glabro non prolongato. Stamina maiora: thecae 4 X 0.7 mm, poro 0.15 mm diam. ventraliter inclinato, connectivo ad basim dorsaliter per 1 mm paullulo elevato ventraliter ca 0.4 mm bilobulato. Stamina minora: thecae 3 X 0.6 mm, connectivo dorsaliter ad basim non incrassato, ventraliter 0.3 mm bilobulato. Stigma non expansum; stylus 8.6 X 0.35 mm in ovarii collo 0.4 mm immersus; ovarium 3-loculare ca 1/2 inferum, cono sparse glanduloso-puberulo.

Type Collection: Francisco Guanchez 913 (holotype US 2899385; isotype VEN), collected 1 km east of San Pedro de Cataniapo (55 km SE of Puerto Ayacucho), Depto. Atures, Terr. Amazonas, Venezuela, elev. 90 m. "Arbusto de 1.5 m de alto, cáliz blanco crema con indumento marrón claro, corola blanca, filamentos rosa muy pálido, raquis, envés y tallos juvenes con cubierta harinosa marrón, aislada y frecuente en el bosque medio ralo."

Paratype: Steyermark, Berry, Huber, & Redmond 113891 (US, VEN), from tall rainforest ESE of Puerto Ayacucho, 10-30 km on road to Gavilan, Amazonas, Venezuela, elev. 120 m, 11 June 1977. "Shrub 3 m tall; fruit red; leaves dark green above, dull green below."

The suggested relative, known only from near Manaos, Brazil, has larger leaf blades abruptly caudate-acuminate 3-5 cm at the apex and decurrent on the petiole (i.e. plinerved) 1-2 cm at the base, as well as glabrous filaments and style; both large and small anthers have ventrally inclined pores. In pubescence, anther shape, and ovary, the two species are alike. Miconia riparia Triana and M. uvida Wurdack are perhaps distantly related to the above two species. Among Venezuelan species, M. grossidentata resembles somewhat M. yatuensis Wurdack, which however has less prominently toothed plinerved leaves and 4-merous flowers.

MICONIA VILHENENSIS Wurdack, sp. nov.

M. puberulae Cogn. et M. mattogrossensi Hoehne affinis,

foliis ternatis floribus maioribus differt.

Ramuli primum sulcato-tetragoni demum teretes primum (praecipue ad nodos) sicut foliorum subtus venae primariae inflorescentia hypanthiaque sparse stellulato-puberuli (pilis ca 0.1 mm diam.) glabrati. Folia plerumque ternata deflexa; petioli 0.2-0.4 cm longi crassi; lamina plerumque 4-7 X 1.5-2.5 cm anguste ovata apice gradatim acuminato basi 0.2-0.3 cm cordata, rigidiuscula et integra marginibus paulo cartilagineis, ubique in superficie glabra, 3(-5)-nervata nervis secundariis 1.5-2 mm inter se distantibus supra obscuris nervulis subtus planis laxiuscule (1-1.5 mm) reticulatis. Panicula 4-7 cm longa multiflora; flores 4-meri, pedicellis ca 1 mm longis, bracteolis 0.7-0.8 X 0.2-0.3 mm ad hypanthii basim insertis mox deciduis. Hypanthium (ad torum) 1.3 mm longum; calycis tubus 0.1 mm longus, lobis interioribus 0.3 mm longis ovato-triangularibus, dentibus exterioribus obscuris non eminentibus. Petala 1.9-2.2 X 1.6-1.8 mm asymmetrice obovata obscure granulosa. Stamina essentialiter isomorphica glabra; filamenta 2 mm longa; antherarum thecae 1.5 X 0.3 X 0.35 mm oblongae, poro 0.2 mm diam. ventraliter inclinato; connectivum ad basim 0.4-0.5 mm prolongatum dorsaliter 0.1-0.15 mm calcaratum ventraliter non appendiculatum. Stigma non expansum; stylus 2.2-2.3 X 0.2-0.3 mm glaber; ovarium 3(?)-loculare 1/3-1/2 inferum glabrum.

Type Collection: M. G. Vieira, J. L. Zarucchi, R. H. Petersen, J. F. Ramos, & C. D. A. Mota 626 (holotype MG 72082; isotypes NY, US), collected in savanna 4 km from Vilhena, 12° 45' S, 60° 10' W, T. F. Rondônia, Brazil, 25 Oct. 1979. "Erva de 35 cm de altura; flores brancas; calice verde."

Paratype: Vieira, Zarucchi, Petersen, Ramos, & Mota 611 (MG, NY, US), topotypical, 25 Oct. 1979. "Arbusto de 2 m de altura; frutos imaturos, roxas."

Both the 4-merous relatives have paired leaves, coarser pubescence, and smaller flowers (petals 1.2-1.3 X 0.7-0.8 mm; anther thecae 1-1.2 mm long). While M. puberula was described as 5-merous, the Flora Brasiliensis plate, the Spruce isosyntype (NY), and numerous recent collections from Amazonian Peru, Bolivia, and Colombia show 4-merous flowers. In M. puberula, the larger stamen connectives are obscurely calcarate dorso-basally, the smaller ones ecalcarate; in M. mattogrossensis, both stamen series have ecalcarate connectives. To M. mattogrossensis, I have referred Kirkbride & Lleras 2792 (Km 879, Cuiaba-Santarem road, Pará), Philcox & Ferreira 3856 and 3907, Harley 11307, and Ratter et al R1142 (the latter four collections all from near the Royal Society base camp, 12° 49'-54' S, 51° 46'-52' W, Mato Grosso). I had earlier identified the Royal Society collections as M. minutiflora (Bonpl.) DC., which has 5-merous flowers and well-developed stamen connective appendages. A rare 4-merous species, M. fragilis Naud., with very fine pubescence but distinctly developed stamen connective appendages, perhaps also should be considered in this complex. The general aspect of M. vilhenensis is also like that of M. ligustroides (DC.) Naud. var. cordifolia Cogn., which has paired leaves, 5-merous flowers,

and more developed connective appendages in the large stamens.

*MICONIA LUTEYNII* Wurdack, sp. nov.

Sect. Amblyarrhena. *M. nigripes* Gleason affinis, pubescentia ubique eglandulosa foliorum laminis minoribus supra vix setosis subtus densissime setulosis 5-nervatis petalis maioribus differt.

Ramuli teretes sicut petioli laminarum subtus venae primariae inflorescentia hypanthiaque dense pilis laevibus paulo deflexis 1-1.5 mm longis et sparsiuscule pilis asperis ca 0.1-0.3 mm longis induti. Petioli 0.5-1 cm longi; lamina 2-5 X 1.3-2.3 cm anguste ovata apice acuto basi paulo (usque ad 0.3 cm) cordata vel rotundata, rigida et subserrulata, supra bullulata et in bullis minute (0.1-0.2 mm) aspero-setulosa in venis sparsissime setulosa (0.3-0.5 mm), subtus dense setulosa pilis laevibus 0.5-1 mm longis et sparsiuscule aspero-setulosa pilis ca 0.1 mm longis, 5(-7)-nervata. Inflorescentia 3-7 cm longa pauciflora; flores 5-meri, pedicellis plerumque 1-2 mm longis, bracteis 0.5-0.8 X 0.5 mm subpersistentibus. Hypanthium (ad torum) 2.5 mm longum; calycis tubus 0.5 mm longus, lobis interioribus 0.9 mm longis ovatis ciliolatis, dentibus exterioribus setulosis ca 0.3-0.5 mm eminentibus. Petala 5.4-5.5 X 5-5.6 mm obovata paullulo emarginata setula unica terminata alioqui glabra. Stamina isomorphica glabra; filamenta 2.7-3 mm longa; antherarum thecae 2-2.1 X 0.45 X 0.5 mm oblongae, poro 0.15 mm diam. ventraliter inclinato, connectivo ad basim antice exappendiculato postice dente hebeti descendenti 0.2-0.25 mm longo armato. Stigma non expansum; stylus 5.5 X 0.25-0.3 mm in ovarii collo 0.4 mm immersus basim versus sparsiuscule setulosus pilis 0.2-0.25 mm longis eglandulosis; ovarium 5-loculare et 1/2 inferum apice sparsissime pilis 0.2 mm longis eglandulosis armato.

Type Collection: James L. Luteyn, Maria Lebrón-Luteyn & Gustavo Morales 7512 (holotype COL 206352; isotypes NY, US), collected in cloud forest just inside Parque Nacional Munchique, kms 60-65 along El Tambo-20 de Julio road, Depto. Cauca, Colombia, elev. 2500-2560 m, 26 April 1979. "Shrub with stems spreading along surface of ground to 2 dm; calyx maroon; petals white; stamens yellow. Stem pubescence reddish brown.

The suggested relative has 7-9-nerved larger and relatively wider leaf blades moderately lax-setulose (to 1 mm) above and only moderately fine setose (to 1.5 mm) beneath, the long foliar, cauline, inflorescence, and hypanthial hairs in part gland-tipped, and petals only 4-4.5 mm long. In the underlying pinoid pubescence, petals, stamens, and ovary, the two species are qualitatively alike, but the style of *M. nigripes* is inconspicuously (0.1 mm) glandular-puberulous. More distant relatives include *M. cordifolia* Wurdack (much larger 7-9-nerved leaves, hypanthia sparsely glandular-setulose, filaments and style glandular-puberulous, stigma expanded), also perhaps *M. haematostemon* Naud. (larger leaves, larger and less densely setulose hypanthia, densely glandular-puberulous filaments and style) and *M. setosa* Wurdack (larger elliptic leaf blades plane above and more sparsely setulose beneath, larger petals, glabrous

style), but not M. lithophila Uribe.

MICONIA LICROPHORA Wurdack, sp. nov.

Sect. Amblyarrhena. M. cataractae Triana affinis, ramulorum pilis longioribus foliis supra pilis laevibus dimorphicis modice strigulosus et subtus pilis longioribus indutis hypanthiis (tori zona excepta) esetulosus differt.

Ramuli paullulo nodosi primum obtuse sulcato-quadrangulati demum teretes primum sicut inflorescentia modice setulosi pilis stipitato-stellatis (stipite 1-1.5 mm longo radiis primariis plerumque 2 paullulo ramulosis) demum glabrati. Petioli 2-4 cm longi; lamina 8-12 X 3-5.5 cm ovato-elliptica apice gradatim hebeti-acuminato basi obtusa vel rotundata, chartacea et obscure undulato-serrulata ciliata (pilis laevibus 1-1.5 mm longis), supra strigulosa pilis sparsis laevibus robustis ca 1 mm longis et pilis numerosis 0.2-0.3 mm longis laevibus, subtus sparsiuscule pilis stipitato-dendroideis (stipite 1-1.5 mm longo) armata, 3-nervata (pari debili inframarginali neglecto) nervis secundariis plerumque 4-5 mm inter se distantibus nervulis subtus laxe reticulatis areolis ca 2 mm latis. Panicula ca 10 cm longa submultiflora; flores 5-meri in ramulis interrupto-aggregati vel terminali-aggregati, pedicellis ca 0.5 mm longis, bracteolis 1.5-2 X 0.4-0.5 mm persistentibus. Hypanthium (ad torum) 2 mm longum basim versus glandulis minutis modice armatum alioqui plerumque glabrum; calycis tubus 0.5 mm longus extus sparse setulosus, lobis interioribus 0.6 X 0.7 mm oblongis ad basim remotis, dentibus exterioribus crassis sparse setulosus non eminentibus; torus intus glaber. Petala glabra 2-2.2 X 1.8 mm suborbiculari-obovata apice paullulo emarginato. Stamina paullulo dimorphica glabra; filamenta 3.6-3.7 mm vel 3 mm longa; antherarum thecae 2.1 X 0.45 X 0.5 mm vel 1.8 X 0.4 X 0.6-0.7 mm oblongae apice minute (0.1 mm) uniporosae; connectivum non prolongatum dorsaliter ad basim obscure (0.1-0.15 mm) hebeti-dentatum. Stigma expansum 0.6 mm diam.; stylus 6 X 0.35 mm sparse glanduloso-puberulus (0.15 mm); ovarium 5(?)-loculare ca 1/7 inferum glabrum.

Type Collection: F. R. Fosberg 19266 (holotype US 2142866), collected in a wet ravine in headwaters of Río Neiva between Cerro Neiva and Cerro del Diablo 35 km east-south-east of Neiva, Depto. Huila, Colombia, elev. 2300-2360 m, 6 Dec. 1942. "Shrub 1.5 m tall; flowers white."

In modal populations (Haught 6525; excellent match for Holton isotype, NY) of M. cataractae, the deciduous upper leaf surface hairs are all stipitate-stellate (stalk 0.1 mm; radii 6-8) and the lower leaf surface pubescence is similar (stalk 0.2-0.3 mm; radii 6-8); the hypanthia are evenly and moderately to densely puberulous with stipitate-stellate hairs (stalk 0.3-0.5 mm; radii ca 8). However M. cataractae is quite variable (Fl. Venez. 8: 471). Perhaps another (at least in anther morphology) but more distant relative is M. difficilis Triana.

MICONIA CLYPEATA Wurdack, sp. nov.

In systemate Cogniauxii M. stipulari Naud. affinis, foliorum

laminis ad basim cordatis et adaxialiter scutatis petalis maioribus differt.

Ramuli alato-quadrangulares (alis 1-1.5 mm altis) sicut foliorum subtus venae primariae secundariaeque inflorescentia hypanthiae primum sparsiuscule puberuli (pilis stellulato-lepidotis 0.05-0.1 mm latis) demum glabrati; nodi linea crassa ca 3 mm elevata inter petiolos armati. Petioli plerumque 4-6 cm longi sicut lamina supra primum sparse pilis dendroideis 0.1-0.2 mm longis mox deciduis armati; lamina plerumque 9-13 X 5-10 cm ovata apice abrupte per 0.5-0.7 cm hebeti-acuminato basi 0.7-1 cm cordata (lobis paulo imbricatis), rigidiuscula et calloso-denticulata, supra ad basim imum appendice tumida transversa 7-8 X 3-4 mm armata, subtus in superficie primum sparse stellulato-lepidota mox glabrata, 5-nervata (pari inframarginali debili neglecto) nervis secundariis 2-3 mm inter se distantibus nervulis subtus laxe reticulatis areolis 1-1.5 mm latis. Panicula ca 10-15 cm longa submultiflora; flores 5-meri, pedicellis 1-1.5 mm longis, bracteolis 3-3.5 X 2-2.5 mm ellipticis ante anthesim deciduis. Hypanthium (ad torum) 3 mm longum; calycis tubus 0.3 mm longus, lobis interioribus 1.8 X 2 mm basaliter imbricatis membranaceis fasciculato-ciliolatis, dentibus exterioribus inframarginalibus; torus intus dense glanduloso-ciliolatus (0.15 mm). Petala glabra 5.2 X 2.4-2.5 mm oblongo-elliptica apice paulo retuso. Stamina isomorphica glabra; filamenta 2.8-3 mm longa; antherarum thecae 1.9-2 X 0.6 X 0.7 mm oblongae apice dorsaliter emarginato-poroso (0.3-0.35 mm); connectivum non prolongatum ventraliter exappendiculatum dorsaliter dente hebeti descendenti 0.25-0.4 X 0.2 mm armatum. Stigma paullulo expansum 0.5 mm diam.; stylus 5.5 X 0.2-0.35 mm glaber in ovarii collum 0.5 mm immersus; ovarium 3-loculare et 1/2 inferum, collo modice glanduloso.

Type Collection: James L. Luteyn, Maria Lebrón-Luteyn, & Gustavo Morales 7325 (holotype COL 205897; isotypes NY, US), collected along Ansermanuevo-San José del Palmar road 11 km east of San José del Palmar (1 km from Chocó-Valle border), Depto. Chocó, Colombia, elev. 1900 m, 20 April 1979. "Shrub 2-2.5 m tall, stems winged. Rachis, pedicels, and calyx purplish-lavender. Petals white. Stamens yellow. Locally common."

Miconia stipularis has longer cauline pubescence, 3-nerved (or very obscurely 5-nerved) leaf blades obtuse at the base and without a scutum, torus glabrous within, petals only 2.5-3 mm long, and glabrous ovary. Certainly M. clypeata is not closely related to species 356-360 of Cogniaux' Monograph, nor M. andreana Cogn. (probably) and M. gibba Markgraf. In anthers but not in vegetative features, M. clypeata somewhat resembles M. fosbergii Wurdack and its relatives (Phytologia 14: 271-272, 1967); the foliar scutum is similar to that seen in several species of Axinaea.

MICONIA URIBEI Wurdack, sp. nov.

Sect. Amlyarrhena. M. gibbae Markgraf affinis, foliis ad petiolorum apices vix bigibbosis stylo puberulo differt.

Ramuli teretes sicut foliorum subtus venae primariae petioli

inflorescentiaque primum densiuscule pilis pinoideis 0.1-0.3 (-0.5) mm longis puberuli demum glabrati. Petioli plerumque 1-2 cm longi; lamina 8-17 X 4.5-8.5 cm ovata apice breviter hebeti-acuminato basi 0.3-0.8 cm cordata, rigidiuscula et calloso-denticulata, supra bullata et glabra, subtus in venis secundariis sparse pinoideo-puberula in superficie glabra ad basim non vel obscure (ca 1 mm) bicallosa, 5-nervata (pari exteriore tenui inframarginali neglecto) nervis secundariis ca 3 mm inter se distantibus subtus sicut nervis tertiariis elevatis nervulis subtus planis areolis 0.5-1 mm latis. Panicula ca 12 cm longa multiflora; flores 5-meri, pedicellis 1-1.5 mm longis et ca 0.5 mm infra hypanthium articulatis, bracteolis 1-1.5 X 0.2-0.3 mm mox deciduis. Hypanthium (ad torum) 2 mm longum sparse stellulato-pinoideo-furfuraceum; calycis tubus 0.1 mm longus, lobis interioribus 0.6 X 0.4 mm oblongis fimbriato-ciliolatis, dentibus exterioribus crassis non eminentibus; torus intus glaber. Petala glabra 1.3-1.5 X 1.3-1.5 mm suborbicularia. Stamina subisomorphica glabra; filamenta 2 mm longa; antherarum thecae 1.6 X 0.4 X 0.55 mm oblongae, poro 0.2 mm diam. terminali; connectivum non prolongatum ad basim ventraliter 0.15 mm bilobulatum dorsaliter 0.1 mm dentatum. Stigma paullulo expansum 0.4 mm diam.; stylus 5.7 X 0.3-0.35 mm sparse puberulus (0.2 mm) in ovarii apicem 0.25 mm immersus; ovarium 3-loculare et 1/4-1/3 inferum glaber.

Type Collection: Lorenzo Uribe Uribe 6580 (holotype COL 206962; isotypes COL, US), collected along the road between Mocoa and Sibundoy, Putumayo, Colombia, elev. 1600 m, June 1971. "Espléndido arbusto de 1,5-2 m de altura, con hojas muy bellas de envés morado-purpúreo. Florecitas blancas."

The two species are alike in pubescence, leaf venation and margins, and most floral details; M. gibba however has a more pronounced dorsal connective tooth in the large stamens, a glabrous style, and a prominent bilobate corneous appendage abaxially at the petiole apex (rather than the obscure callosities seen in M. uribei). Both M. andreana Cogn. and M. rivetii Dang. & Cherm. are more distantly related, having less discrete leaf vein and inflorescence pubescence, larger leaves with setose petioles, the torus glandular-puberulous within, the calyx less lobed, and the style glabrous.

KILLIPIA LATIFOLIA Wurdack, sp. nov.

K. pedunculatae Gleason affinis, ramulis teretibus foliorum petiolis longioribus laminis latioribus distincte 5-nervatis differt.

Ramuli teretes paulo nodosi glabri. Petioli 2-3.5 cm longi; lamina 5-7 X 3-4.5 cm late ovata apice basique late acuto vel anguste obtuso, rigida et apicem versus calloso-ciliolata (0.1-0.2 mm), ubique glandulis minutis sparsis subtus exceptis glabra, 5-nervata (pari exteriore inframarginali tenui neglecto) nervis secundariis ca 2 mm inter se distantibus nervulis subtus laxe (1.5-2 mm) reticulatis. Inflorescentia lateralis in ramulis infra folia plerumque oriunda 3-5 cm longa pauciflora; flores



5-meri, pedicellis 10-15 mm longis et paulo supra medium articulatis, bracteolis caducis non visis. Hypanthium (ad torum) 3 mm longum glabrum teres; calycis tubus ca 1 mm longus, lobis interioribus ca 1.3 mm longis triangularibus ad basim remotis, dentibus exterioribus crassis non eminentibus. Petala extus pruinosa ca 5-6 X 5 mm suborbicularia. Filamenta ca 2.5 mm longa glabra; antherarum thecae ca 2.4 X 0.4 X 0.8 mm oblongae, poro ca 0.1 mm diam. paullulo dorsaliter inclinato; connectivum glabrum non prolongatum ad basim dorsaliter paulo tuberculatum ventraliter ca 0.2 mm bilobulatum. Stigma paulo expansum 0.7 mm diam.; stylus 7 X 0.4 mm glaber in ovarii apicem paulo intrusus; ovarium ca 0.4 inferum 3-loculare cono glabro.

Type Collection: James L. Luteyn, Maria Lebrón-Luteyn, & Gustavo Morales 7504 (holotype COL 206294; isotype NY), collected in cloud forest just inside Parque Nacional Munchique, kms 60-65 along El Tambo-20 de Julio road, Depto. Cauca, Colombia, elev. 2500-2560 m, 26 April 1979. "Shrub to 1.5 m tall; pedicels and calyx red; corolla pale yellow; stamens yellow; one plant seen."

Both K. pedunculata and K. quadrangularis Gleason have sharply 4-angled branchlets and petioles 1 cm or less long, as well as proportionately much narrower 3-nerved leaf blades.

**KILLIPIA ROTUNDIFOLIA** Wurdack, sp. nov.

K. latifoliae Wurdack affinis, foliorum laminis subrotundis apice rotundatis floribus paulo maioribus calycis lobis interioribus oblato-rotundatis lateraliter contiguus differt.

Ramuli teretes nodosi glabri. Petioli 1-2 cm longi; lamina 2-4 X 2-4 cm rotundata apice rotundato et obscure (ca 1 mm) abrupteque apiculato basi late obtusa, rigida et apicem versus ciliolata (0.2-0.3 mm) ubique glandulis minutis sparsissimis subtus exceptis glabra, supra paulo rugosa, 5-nervata nervis secundariis 1.5-2 mm inter se distantibus nervulis subtus laxae (ca 2 mm) reticulatis. Inflorescentia lateralis in ramulis infra folia oriunda 1-3-flora, pedunculo 0.5-1 cm longo; flores 5-meri, pedicellis 7-8 mm longis et ca 2-3 mm infra hypanthium articulatis, bracteolis ca 1.5 X 0.3-0.4 mm ante anthesim deciduis. Hypanthium (ad torum) 3 mm longum glabrum teres; calycis tubus 1 mm longus, lobis interioribus 2 X 2.6-3 mm rotundis lateraliter contiguus, dentibus exterioribus non eminentibus. Petala extus pruinosa ca 6 X 5 mm suborbicularia apice emarginato. Filamenta ca 2 mm longa; antherarum thecae ca 2.7 X 0.5 X 1 mm oblongae, poro ca 0.2 mm diam. terminali; connectivum glabrum non prolongatum ad basim dorsaliter paulo tuberculatum ventraliter ca 0.2 mm bilobulatum. Stigma paulo expansum ca 0.6 mm diam.; stylus ca 0.3 mm diam. glaber in ovarii apicem 0.2 mm immersus; ovarium 3-loculare et ca 1/3 inferum, cono 1.7 mm alto glabro.

Type Collection: Lorenzo Uribe Uribe 6559 (holotype COL 122578; isotype US), collected in the region of "Charco azul," Cordillera Occidental, Mun. El Tambo, Depto. Cauca, Colombia, elev. ca 2000 m, June 1971. "Bella planta de hojas purpuras en el envés. Flores rosadas."

The general aspect of K. rotundifolia is rather like that of Miconia rhodantha Wurdack.

LOREYA HUBERI Wurdack, sp. nov.

L. ovatae Cogn. affinis, foliorum laminis crassioribus gradatim breviterque hebeti-acuminatis hypanthiis petalisque maioribus differt.

Ramuli primum quadrangulati demum teretes primum sicut folia novella modice rufo-strigulosi pilis gracillimis 0.1-0.2(-0.3) mm longis mox glabrati. Petioli (2-)3-4.5 cm longi robusti: lamina (15-)19-25 X (6-)9-12 cm ovato-elliptica apice breviter (0.5-1 cm) gradatimque hebeti-acuminato basi late acuta vel obtusa, coriacea et integra, breviter (ca 1 cm) 3-plinervata (pari exterioriore tenui ca 1-2 mm inframarginali neglecto) nervis secundariis ca 8-10 mm inter se distantibus nervulis tenuibus subtus planis laxe (ca 2-3 mm) reticulatis. Flores 5-meri ad nodos infra folia ca 2-6, pedicellis 5-7 mm longis, bracteolis basalibus 1-1.5 mm longis ovatis persistentibus. Hypanthium (ad torum) 3 mm longum basim versus inconspicue strigulosum pilis 0.1 mm longis; calyx 2 mm longus truncatus intus sparse strigosus (0.1 mm). Petala ca 12-12.5 X 9 mm unguiculata (ungue 4-4.5 X 4-5.5 mm; limbo ca 8 X 9 mm apice hebeti-acuto) intus linea transversa paulo elevata notata extus inconspicue pruinoso-papillosa. Filamenta 6-7 mm longa; antherae 5.2 X 3 X 2 mm oblongae ventraliter ad apicem minute (0.1 mm) biporosae. Stigma expansum ca 2.7 mm diam. striatum; stylus 10 X 1-2 mm glaber; ovarium 5(?)-loculare omnino inferum apice glabro.

Type Collection: Otto Huber 1251 (holotype US 2891868; isotype VEN), collected in savannas at base of mountain north of Cerro Morrocoy ca 10 km west of San Juan de Manapiare, basin of Río Manapiare, 5° 19' N, 66° 6' W, Terr. Amazonas, Venezuela, elev. ca 175 m, 17 Oct. 1977. "Arbusto 4-5 m alto, abundante entre rocas húmedas de sabana de colina. Cáliz color crema; corola rosado-blancuzca afuera, blanca adentro; filamento blanco; anteras amarillentas; estilo y estigma blancos."

Loreya ovata has qualitatively similar pubescence and flowers, but much thinner (and generally smaller) caudate-acuminate leaf blades and (along with L. minor Cogn.) considerably smaller flowers (hypanthium plus calyx 4-5 mm long; petals ca 9-10 mm long; stigma 1.7-2.2 mm diam.). While both L. spruceana Cogn. (hypanthium externally and calyx within densely strigulose; anthers 1-pored) and L. mucronata Gleason (vegetative pubescence much longer; hypanthium plus calyx longer) have leaf blades rather like those of L. huberi (albeit thinner), neither seems as closely related in floral features as the first-cited relatives; a recent second collection of L. mucronata (Steyermark & Bunting 102610, Río Yatua, Amazonas, Venezuela) is fruiting only, so the mature anther structure is still unknown. In vegetative facies, L. huberi rather resembles Henriettella prancei Wurdack (*Phytologia* 48: 249. 1981).

BLAKEA NODOSA Wurdack, sp. nov.

B. jativae Wurdack affinis, foliis 5-nervatis pedicellis brevioribus floribus minoribus calycis lobis oblati imbricatis stylo glabro differt.

Ramuli robusti teretes pilis gracilibus ascendenti-incurvis 3-5 mm longis densiuscule induti; nodi notabiliter incrassati 3-5 mm elevati processis membranaceis acuminatis ca 4-5 X 2 cm mox laceratis et deciduis armati. Petioli 4-5.5 cm longi robusti adaxialiter sparse decidueque setulosi pilis ca 0.2 mm longis; lamina 15-21 X 9-12 cm elliptica apice plerumque breviter (0.5-1 cm) abrupteque hebeti-acuminato basi late acuta vel obtusa, rigida et obscure calloso-serrulata, supra glabra, subtus sicut ramuli densiuscule pilis asperis ca 0.1 X 0.1 mm induti, 5-nervata (pari exteriori tenui ca 0.3-0.5 mm inframarginali neglecto) nervis secundariis ca 2 mm inter se distantibus. Flores in quoque nodo 8-12, pedicellis 1-1.5 cm longis; bracteae liberae concavae subvenosae rigidiusculae suborbiculares (apice rotundato) intus subamorpho-furfuraceae extus glabrae; bracteae exteriores 15 X 12-14 mm; bracteae interiores 12 X 12 mm. Hypanthium (ad torum) 5.5 mm longum glabrum ad basim processibus membranaceis aliquot ca 4 X 1-2 mm et pilis gracillimis numerosis ca 3-4 mm longis subtentum; calycis tubus 0.5 mm longus, lobis ca 2.5 X 5 mm oblati paulo emarginatis dense ciliolatis (ca 0.2 mm) extus paulo carinatis et lateraliter ca 0.5 mm imbricatis. Petala 18 X 9 mm apicem versus retrorso-ciliolata (0.1 mm) alioqui glabra oblongo-obovata apice rotundato-truncato. Filamenta 9.5 mm longa glabra; antherae 6.3 X 2.7 X 1.8-1.9 mm inter se cohaerentes minute biporosae; connectivum ad basim e filamento dorsaliter ca 0.5 mm elevatum. Stigma non expansum; stylus 11 X 0.5-0.8 mm glaber; ovarium 6-loculare, cono 3 mm alto glabro paulo costulato (collo non evoluto).

Type Collection: J. van Rooden, B. J. H. ter Welle, & S. M. C. Topper 434 (holotype US 2894704; isotypes COL, US; wood sample Uw 25583), collected in lowland rain forest in the concession of Carton de Colombia near San Isidro, Mun. Buenaventura, Depto. Valle del Cauca, Colombia, 3° 56' N, 77° 10' W, elev. ca 230 m, 15 Nov.-6 Dec. 1979. "Woody plant, together with tree of Humiriaceae. Leaves brittle, stiff, green and somewhat shining above, reddish brown beneath. Calyx green with brown margins, petals and filaments white, anthers yellow, style dark red, top white."

Blakea jativae has similar vegetative pubescence and large stipuliform nodal processes, but leaves 7-nerved, pedicels 2-3 cm long, bracts 19-25 mm long, hypanthium 7 mm long, calyx lobes ovate and 5 mm long, petals 27 X 14-15 mm, style glandular, and connective tooth of the anthers more developed. In floral structure (especially the sepals and fine hairs subtending the hypanthium base), B. pilosa Gleason is very similar; that species, however, has only cobwebby foliar pubescence and finer hairs on the less nodose branchlets; no stipuliform nodal membrane is evident in two sheets (NY, US) of Cuatrecasas 16532, only setae to 15 mm long. Several other probably undescribed taxa related to B. nodosa have been collected in Valle (Hilty 0-3), Nariño (Maguire

& Maguire (6225) and Chocó (Forero et al 3078); comparison (ex char.) is needed with B. squamigera Uribe.

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## NOTES ON NEW AND NOTEWORTHY PLANTS. CLV

Harold N. Moldenke

*ALOYSIA DODSONIORUM* Mold., sp. nov.

Frutex herbaceus usque ad 1 m. altus; ramulis gracilibus subteretibus hispidulis; foliis decussato-oppositis; petiolis gracilibus 5--10 mm. longis dense puberulis; laminis foliorum rigidis ellipticis vel ovato-ellipticis 3--7.5 cm. longis 2.5--4.8 cm. latis, apicaliter subacutis vel acutis marginaliter adpresso-serrulatis basaliter in petiolum cuneato-attenuatis supra valde rugosis asperisque subtus densissime flavido-puberulis; inflorescentiis axillaribus solitariis picatis longipedunculatis.

A herbaceous shrub to 1 m. tall; branchlets apparently subterete, brownish, more or less hispidulous, the hairs eventually wearing off; principal internodes rather elongate; leaves decussate-opposite; petioles slender, 5--10 mm. long, densely yellowish-puberulent; leaf-blades rigidly chartaceous, elliptic or ovate-elliptic, 3--7.5 cm. long, 2.5--4.8 cm. wide, apically subacute to acute, marginally appressed-serrulate to slightly below the widest part, basally cuneately attenuate into the petiole, conspicuously rugose and scabrous above, densely yellowish-puberulent beneath; inflorescence axillary, solitary, long-pedunculate, spicate; peduncles slender, 4--6 cm. long, rather densely yellowish-puberulent; spikes cylindrical, very dense, elongating to at least 2 cm. after anthesis, many-flowered; bracts narrow-lanceolate, the lowermost to almost 1 cm. long and 2 mm. wide, rather densely puberulent dorsally, apically acute; calyx very small; corolla lemon-yellow or finally white, hypocrateriform, the tube very slender, about 5 mm. long, the limb about 2 mm. wide; fruit dry,

The type of this species was collected by C. H. and P. M. Dodson (no. 11224) -- in whose honor it is named -- on a hillside at Capaira, at km. 21 from Guayaquil to Daule, 20--200 m. altitude, Guayas, Ecuador, in tropical dry forest, on September 15, 1981, and is deposited in my personal herbarium.

*ALOYSIA TRIPHYLLA* f. *SERRULATA* Mold., f. nov.

Haec forma a forma typica speciei laminis foliorum marginaliter argute serrulata recedit.

This form differs from the typical form of the species in having the margins of its leaf-blades regularly and sharply serrulate except at the very apex and base.